



Case report

Oesophageal and gastric obstruction in a cocaine body packer

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ABSTRACT

While the management of asymptomatic body packers is mainly conservative, few individuals will require surgery for acute toxicity related to packets rupture, intestinal obstruction or very slow progression of the packages. Obstruction of the lower oesophagus or stomach is not frequently reported. We report the case of a 49-year-old woman who had ingested 92 cocaine-containing packages. She was admitted to the hospital after opioid syndrome related to the intake of morphine and codeine to decrease intestinal transit. The presence of more than 80 packages was suspected in the stomach on the initial abdomen computed tomography. Due to the absence of progression of the packages after four days of well-conducted laxative therapy and to major gastric distension at abdomen tomography, surgery was decided and gastrotomy allowed the evacuation of 80 packages that were still present in the stomach or in the lower oesophagus. In addition, 12 other packages had been retrieved either after laxative therapy (9) or by evacuation via the anal canal (3) after palpation of the intestine during the surgical procedure. No complication was observed.

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1. Introduction

Body packing may expose the patient (the “drug mule”) to a significant number of complications, including acute poisoning after rupture of the packages, or more exceptionally, intestinal obstruction. Most of the patients can be managed conservatively by oral laxatives.¹ However, surgical intervention has been recommended in cases of package retention beyond 5–7 days to prevent package leakage, rupture and obstruction.² We report a recent case of oesophageal and gastric obstruction caused by a large number of cocaine-containing packages.

2. Case report

A 49-year-old previously healthy woman originated from East Africa was found stuporous in the railway station of the airport. Her consciousness rapidly deteriorated before the arrival of the first medical rescuers. She was then found with a Glasgow Coma Score (GCS) of 3/15, bradypnea 4/min, heart rate 60/min, arterial blood pressure 140/90 mmHg and oxygen saturation (SpO₂) 91%. Pinpoint pupils were also remarkable. Orotracheal intubation was

performed. The diagnosis of opioid poisoning was supported by the clinical response to a single i.v. dose of 0.4 mg naloxone. Soon after the admission in the Emergency Department, an abdomen plain radiography and computed tomography (CT) were obtained due to the high suspicion of body packing. They confirmed the presence of multiple packages (Fig. 1). The estimated count was 81 in the dilated stomach, one in the lower part of the oesophagus and eight in the sigmoid and rectum. Toxicological analysis revealed: serum morphine 0.73 µg/ml, codeine 0.06 µg/ml; urine benzoylecgonine 0.015 µg/ml, 6-monoacetylmorphine (6-MAM) 0.351 µg/ml, codeine 17.6 µg/ml. As the patient did not present any clinical sign of acute cocaine toxicity, a conservative approach was proposed by whole bowel irrigation (polyethylene glycol) and administration of metoclopramide. The patient only complained from abdominal discomfort. Extubation was not possible due to persisting opioid syndrome. (The patient admitted later on having ingested morphine and codeine to decrease intestinal transit. She also confirmed that the packages were containing cocaine). On hospital day 4, the patient became mildly tachycardic and hypertensive, and abdominal discomfort worsened. Cocaine was not found in the urine, with also no significant increase in benzoylecgonine concentration. Clinical symptoms appeared to be more likely related to gastrointestinal obstruction. A new abdomen CT showed no significant progression of the packages; nine only had been removed after laxative therapy. The stomach appeared extremely dilated. A

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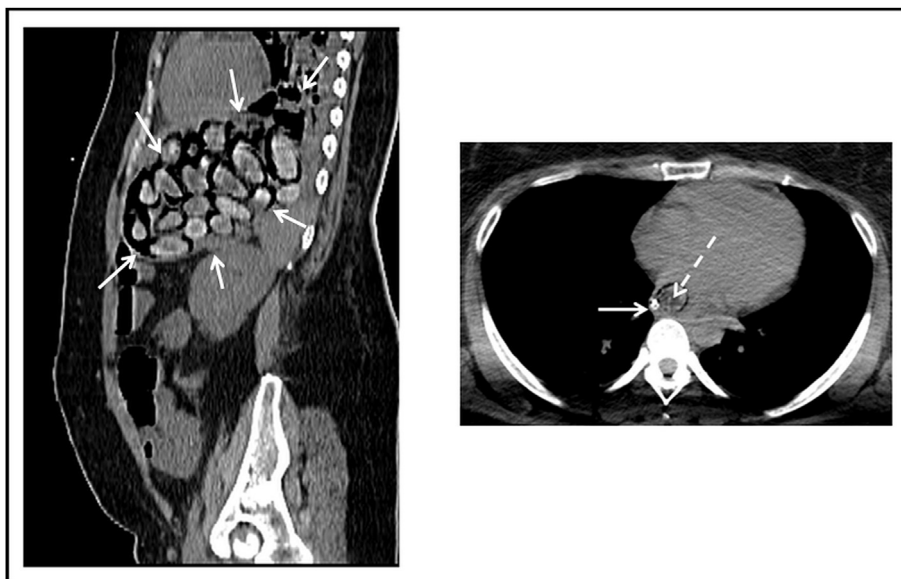


Fig. 1. Abdomen computed tomography (CT) performed on admission, with the sagittal view (left) showing multiple packages in the stomach (arrows). The transversal view (right) revealed the presence of a package (dotted line) in the lower oesophagus, across the nasogastric tube (full line).

surgical procedure was decided and gastrotomy only was performed. On the whole, 79 packages were removed from the stomach. The anesthetic procedure was uneventful. Blood samples drawn during surgery did not reveal any increase of serum cocaine concentration. At the end of surgery, endoscopy confirmed the presence in the lower oesophagus of a single package that can be retrieved through the gastrotomy. Three additional packages were evacuated via anal canal after palpation of the colon. All the packages appeared intact. The immediate post-operative course was not complicated and extubation was possible 48 h later. The abdomen CT confirmed the complete evacuation.

3. Discussion

While immediate surgery is mandatory for the body packers exhibiting signs of acute toxicity after packets rupture, the current management of asymptomatic body packers is mainly conservative.^{1,3} Most packages are eliminated within 30 h, although some body packers may have taken anticholinergic agents or opiates to slow the transit time.²

The exact incidence of intestinal obstruction following body packing is not known, particularly for the upper gastrointestinal tract, and the risk of packets rupture can be hardly estimated in this population.^{4–6} In a short autopsy case series, most of the packets were found in the stomach and the pylorus may be a relevant obstacle for large foreign bodies.⁷ The reason for local accumulation may also be intestinal paralysis caused by additional ingested drugs. Leakage or rupture of the packets in the stomach may be linked to chemical movement or to chemical digestion. Gastric obstruction due to mechanical pylorostenosis has been exceptionally reported after cocaine smuggling.⁸ A 45-year-old man who had swallowed 44 packages of cocaine, was admitted to the hospital with ileus. Signs of acute cocaine intoxication were present from admission. He underwent emergency surgery to remove the packages and recovered despite the rupture of one package. Oesophageal obstruction due to a single large package containing heroin was observed in a 38-year old prison inmate who presented with an 8-weeks history of dysphagia.⁹ The foreign body was successfully removed by endoscopy.

From the literature data, it remains difficult to determine the best timing to intervene for a slow progression of the packages.² It could be hypothesized that the risk of package rupture would increase with time, although symptomatic treatment had been pursued in some patients up to 17 days, without significant complications.¹ In a paper reporting on the UK Hillingdon experience, 56/65 (91.8%) body packers received conservative treatment and only a single patient underwent emergency surgery after evidence of small bowel obstruction due to the non-progression of the packets beyond the stomach after 5 days.¹⁰ In a large published retrospective series of 581 body packers, 573 were discharged within 5 days following conservative management, and only two cases required surgery for obstruction.¹¹ In a recent series of 1250 subjects confirmed to be body packers, only 46 (4.5%) required inpatient evaluation.² The patients who did not pass the packets by day 5 of observation required laparotomy. Twenty-five patients needed surgical intervention. The reason for surgery was: bowel obstruction (32%), packet rupture/toxicity (36%), delayed progression of packets (32%). In our case, the decision to perform surgery on day 4 was justified by the following features: abdominal pain, high number of packets (>50), delayed passage of drug packets (>48 h), concomitant drug usage, especially constipating agents.¹²

Surgery carries some risk of complications. In a large single-centre retrospective study dealing with 70 operated patients, surgery for gastrointestinal obstruction by body packing could be performed with a low mortality and stoma placement rate.⁴ Surgery was mainly indicated when the packages were located in the stomach or in the small bowel. The incidence of wound infection was relatively high (32.9%) and, as in other series, could be related to the number of distal enterotomies. Palpation of the intestine during operation does not exclude totally the presence of remaining packages and the patient should be investigated by an abdomen CT to ensure that all packages are removed.⁶

In contrast, experience with successful endoscopic extraction of cocaine packets from the upper digestive tract is limited and comes mainly from patients who had refused surgery.^{13–15} In the present case, this technique was not attempted as the manipulation of several packets may result in rupture.

In conclusion, while conservative management is usually the rule for asymptomatic body packers, surgery may be indicated in a few cases showing upper gastrointestinal obstruction often associated with delayed progression of the packets. Contrasting to enterotomies, gastrotomy has a low rate of complications. Upper endoscopic retrieval should not be attempted in the presence of multiple packages.

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Conflict of interest

All authors state that they have no conflict of interest to declare.

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